

Lake Delhi
Waste Water Plan
June 21, 2012

Introduction

The Lake Delhi community takes water quality and waste water processes very seriously. The local residents who reside on the lake, whose families and children recreate in the lake water, as well as have wells that draw drinking water from the area, have a more immediately vested interest in maintaining not only an adequate, but superior water quality in the Lake Delhi watershed area. Lake Delhi has had water quality testing performed over the past 10+ years that consistently yielded outstanding water quality results, while also fully complying with Iowa State Law with respect to inspecting waste water systems when a property is sold. However, Lake Delhi seeks to continuously improve our waste water processes and continue to have outstanding water quality in this public recreational lake for fishing, swimming, waterskiing, and other water activities.

With the extensive re-investment by the local community and state, the Lake Delhi community has as its goal to become a model for recreational-residential development around Iowa's water natural resources for new and emerging technologies to maintain water quality -- not only in waste water treatment but also in watershed management. Iowa has invested heavily in water recreational facilities, lakes and parks. It is the natural economic cycle as those recreational sites are developed, individuals migrate to developing residential areas as near to or adjacent to as possible. Lake Delhi wants to be the state model on how to manage that development to both maximize access and enjoyment and maintain the natural resource as close to optimum status as possible.

To this end, we have created this Waste Water Plan. Should you have any questions, please contact the Lake Delhi Combined Recreational and Water Quality Taxing District at trustees@lakedelhi.org.

Section I: Education

Educating people who live around the public lake of Lake Delhi is a key component to our Waste Water Plan. Education about waste water systems and various technologies, current Iowa waste water regulations and law, as well as water quality impacts, is extremely important. When people gain a better understanding of existing research on how waste water systems work, what cost effective waste water systems exist today, are updated on Iowa waste water system regulations and emerging state and federal regulations regarding the Clean Water Act

as well as the time of property transfer law, and the health impacts of waste water; a community culture committed to protection of natural resources including water is created. That is our goal. The result will be less misunderstanding by surrounding neighbors regarding the high quality of water resources the Lake Delhi Community maintains.

Project Plan: Lake Delhi will hold 2 waste water education seminars per year to help continuously educate the local community. These seminars will be held in the local area, have knowledgeable experts (including the local County Sanitarian who can share the ongoing results and emerging water quality regulations from both the DNR & EPA) available to provide information and answer questions, and be designed for the average person who does not have any technical background.

Section II: Compliance to Iowa Law

The Lake Delhi Community will continue to maintain the regular water testing of water resources to monitor water quality and help in the maintenance of the water quality in the community.

According to Dennis Lyons, Director of Waste Water in Delaware County Iowa, the Lake Delhi community/district is and has been in 100% compliance with Iowa State Law. Dennis works closely with the Lake Delhi community, and Dennis explained to us the following:

- “Ever since the breach and Lake Delhi went away, I have not seen one issue through my own efforts nor have I received 1 phone call from anyone about a sewage or disposal problem of any kind in the Lake Delhi area. And with the lake water gone, it would be very easy to see these issues. If there was a problem, it would be very easy to tell, but I am not aware of any at Lake Delhi.”
- “Lake Delhi is and has been monitored under the law by the Delaware County Iowa Water and Sanitation Department. Since 1990, when a ‘permitting process’ for Septic systems was begun, over 400 homes on Lake Delhi have those permits in place. Further, many of the pre-permitting/pre-1990 septic systems were known by our department to have been installed correctly. The Time of Transfer Septic Inspection System Iowa State Law has been and is being fully enforced to ensure septic systems completely meet all current codes at every sale of a property at Lake Delhi, just like everywhere else in the State of Iowa. No septic systems are grandfathered by this law. Additionally, more than 15 homes on Lake Delhi have already installed one of the most advanced septic systems available, the AdvanTex system, demonstrating that Lake Delhi property owners are concerned about wastewater and the environment.”
- “Septic Systems are as good as central sewer systems when they are properly maintained. Particularly in a flood event, Septic systems, in my opinion, are superior to central sewer systems to protect against improper sewage, and this has been demonstrated in actual flood events.”

Lake Delhi will maintain compliance with Iowa Waste Water regulations, and through our education initiative, ensure a better understanding of the regulations. As people better understand the regulations, more people will voluntarily upgrade their waste water systems, ask for inspections, and utilize better technology for processing waste water. With more education Lake Delhi residents will better understand what signals indicate a properly working waste water system. This will trigger more waste water system inspections, which will facilitate more waste water system upgrades to new technology.

Section III: Opportunities for Improvement of Waste Water Systems

The Lake Delhi community is committed to ongoing education regarding continuous waste water improvement. The Lake Delhi Combined Recreational and Water Quality District is the governing body for the Lake Delhi Taxing District and would be the conduit for channeling information and ideas about waste water management and water quality. The district has assigned a Waste Water and Water Quality Committee coordinator.

As part of the education element of this plan, new waste water technologies information will be an ongoing part of the seminars held in the lake community. Through this education, new ideas can be generated which can create new opportunities to improve waste water systems. As an example, new technologies developed in recent years have shrunk the footprint of area required to install a very effective and compliant waste water system. A waste water system that was once impossible to install due to the amount of land and space required, is now possible in very small areas. Lake Delhi now features some of the most recent innovations and latest in technology of waste water systems installed throughout the lake. This trend will continue with the education provided above, as homes get sold/purchased by new owners, and as homes are newly built and torn down and rebuilt.

Section IV: Water Quality Testing

Lake Delhi has tested water quality at multiple sites consistently for over 10 years through the IOWATER program sponsored by the Iowa DNR. Water quality was consistently found to meet or exceed state or federal standards. Water Quality testing will continue at Lake Delhi because it is critical to ensure there is empirical evidence demonstrating the quality of the water that is safe from swimming, skiing, tubing, fish habitat, and all the other recreational aspects of Lake Delhi.

The Lake Delhi Combined Recreational and Water Quality District will coordinate the water quality testing effort and ensure that it complies with generally accepted water quality testing practices. Water quality testing information will also be part of the education seminar information touched on above in this plan. The more people that understand what water

quality testing is, the more vested people get in the process of both testing water quality, but also become more educated about what impacts water quality and why.

Routine Water Quality Testing holds the community accountable for maintaining water quality and continuous improvement of waste water systems.

Summary

Each section of this plan is a critical piece of waste water management and improvement. In this plan, Lake Delhi has identified proactive actions that can be taken to continuously improve waste water management in our community, has a framework to ensure that Iowa waste water regulations are being followed, provided a leadership and coordination conduit to take in input/ideas/information, and has an accountability process in place. Water Quality and Waste Water management is of critical importance to the Lake Delhi community to make Lake Delhi the nicest and cleanest lake in Iowa and the Midwest. Lake Delhi wants to be the state model on how to manage development to both maximize access and enjoyment and maintain the natural resource as close to optimum status as possible.

Should you have any questions on this plan, please contact any of the Lake Delhi Combined Recreational Facility and Water Quality Taxing District Trustee's:

Steve Leonard: President

Mary Kray: Clerk

Laurie Kramer: Treasurer

Bruce Schneider: Trustee

Larry Peter: Trustee

Ed Schmidt: Trustee